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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,333	10/03/2000	Mikio Watanabe	0879-0281P	4816

7590

10/20/2006

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EXAMINER

AGGARWAL, YOGESH K

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/678,333	Applicant(s) WATANABE, MIKIO	
	Examiner Yogesh K. Aggarwal	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 is/are allowed.
- 6) ☒ Claim(s) 1-14, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments with respect to claims 1-14, 16 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7-9, 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greer et al. (US Patent # 5,959,622), Katsuhiro (JP Patent # 04098996) and further in view of Pine (US Patent # 6,714,260).

[Claim 1]

Greer et al. teaches an information-recording device (figure 1) comprising a recorder for recording images (col. 2 lines 60-65), a communication device for transmitting image information to external equipment (col. 2 lines 24-35), a controller for controlling the communication section with an external unit through a LAN, WAN, ISDN (col. 2 lines 24-41). Greer further teaches that when a still capture button is pressed that causes a still image capture through camera 102, the still image capture routine typically interrupts any video conference occurring between participants at conferencing systems and a timed count down is started, at the conclusion of switch a still image is captured (col. 3 lines 20-43, figures 1-4, Also see col. 2 lines 42-47).

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Greer teaches that during the time image is being taken an image transmitting operation does not take place by the interruption of video conferencing but fails to teach an oscillation section that stops the pausing of the carrier frequency when the image is being captured by the information recording device.

However Katsuhiro teaches stopping the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device or a transmission line and starting the output of the clock signal when there is any change in order to reduce the power consumption due to a dark current (Abstract).

Therefore taking the combined teachings of Greer and Katsuhiro, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have stopped the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device during the image taking of Greer in order to reduce the power consumption due to a dark current as taught in Katsuhiro.

Greer in view of Katsuhiro fails to teach a carrier generating section for generating a carrier for a wireless communication device. However Pine '260 teaches an imager circuit 15 having a master clock frequency oscillator 17 generating a desired carrier frequency for a radio transmission of the composite video signal for transmitting wirelessly (Col. 1 lines 66-67, col. 2 lines 1-7 figure 1, Abstract).

Therefore taking the combined teaching of Greer, Katsuhiro and Pine, it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate an oscillation section for generating a carrier for said wireless communication device taught in Pine into the system taught in Greer and Katsuhiro in order to pick a radio frequency

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signal by a conventional TV receiver, which can be synthesized on-chip to provide a wireless video link as taught in Pine (Abstract).

[Claim 2]

In the combination of references, Greer teaches to start transmitting the image after the images are recorded (col. 3 lines 38-40, col. 2 lines 60-65) and Katsuhiro teaches starting the oscillation section when the signal for transmission is present (Abstract).

[Claims 3 and 7]

Regarding claims 3 and 7 these are method claims corresponding to apparatus claim 1 and 2 respectively. Therefore, claims 3 and 7 are analyzed and rejected as previously discussed with respect to claim 1 and 2.

[Claim 8]

Greer further teaches to start transmitting the image after the images are recorded in the slave camera and also teaches that the steps of transmitting still image is performed automatically after the still image is captured and recorded (col. 3 lines 38-40, col. 2 lines 60-65). Katsuhiro teaches starting the oscillation section when the signal for transmission is present (Abstract).

[Claim 9]

This similar to the claim 1 except that the information recording device is an electronic camera. However Official Notice is taken of the fact that it is very well known in the art to have a mobile radio telephone set comprising a handset unit with an RF antenna, a display, a keypad and a camera built-in for transmitting and receiving images in order to have a compact unit which is lighter and inexpensive.

Therefore taking the combined teachings of Greer, Katsuhiro, Pine and Official Notice, it would be obvious to one skilled in the art to have an information recording device that has the functions of transmitting, displaying and receiving images in order to have a compact unit which is lighter and inexpensive.

[Claim 13]

Katsuhiro teaches stopping the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device or a transmission line (Abstract) and Pine teaches a master clock frequency oscillator 17 generating a desired carrier frequency for a radio transmission of the composite video signal for transmitting wirelessly (Col. 1 lines 66-67, col. 2 lines 1-7 figure 1, Abstract). Therefore in the combination of references, a carrier generating section is paused by pausing a carrier oscillation section.

[Claim 14]

Pine teaches a multiplier 21 that generates a composite video signal based on the clock frequency set by the composite video signal (col. 2 lines 1-10).

[Claim 16]

Katsuhiro teaches starting the clock signal when there is an input signal present that is to be transmitted to an external device.

[Claim 17]

Katsuhiro teaches stopping the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device or a transmission line (Abstract) and Pine teaches a master clock frequency oscillator 17 generating a desired carrier frequency for a radio transmission of the composite video signal for transmitting wirelessly (Col. 1 lines 66-67, col. 2

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lines 1-7 figure 1, Abstract). Radio frequencies are in the range of upwardly from 150Khz-Mhz.

Therefore in the combination of references, Katsuhiko teaches stopping the clock and Pine teaches a RF-carrier frequency being generated from a clock oscillator. It would be obvious to one skilled in the art that by stopping the high frequency RF signal, the noise due to that will be reduced.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greer et al. (US Patent # 5,959,622) in view of Katsuhiko (JP Patent # 04098996), Pine (US Patent # 6,714,260) and in further view of Kiyokawa (US Patent # 6,204,877).

[Claim 4]

Greer, Katsuhiko and Pine fail to teach "...wherein some information indicating that said carrier is to be paused is transmitted to said external equipment before the generation of said carrier is paused". However Kiyokawa teaches a transmit image data transmission stop command from the master side to the slave side indication that the transmission of images is to be stopped.

Katsuhiko teaches stopping the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device (Abstract). Therefore taking the combined teachings of Greer, Katsuhiko, Pine and Kiyokawa as a whole, it would have been obvious to one skilled in the art at the time of the invention to incorporate wherein some information indicating that said carrier is to be paused is transmitted to said external equipment before the generation of said carrier is paused in order for the user at the other end of the conferencing be aware of an interruption of the video conferencing thereby making the transmission system more robust.

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5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greer et al. (US Patent # 5,959,622) in view of Katsuhiko (JP Patent # 04098996), Pine (US Patent # 6,714,260) and in further view of Yokota et al. (US Patent # 5,847,662).

[Claim 6]

Greer, Katsuhiko and Pine fail to teach, "... the step of receiving a synchronization signal emitted by external equipment while the generation of said carrier is stopped". However these limitations are well known in the art as evidenced by Yokota (col. 2 lines 6-10)[Yokota teaches that the signal received from the radio card is phase-synchronous (synchronization signal) with the first carrier frequency and while that signal is received the generation of the first carrier is stopped (col. 1 lines 46-65)]. Therefore taking the combined teachings of Greer, Katsuhiko Pine and Yokota as a whole, it would have been obvious to one skilled in the art at the time of the invention to incorporate receiving a synchronization signal emitted by an external equipment while the generation of said carrier is stopped as taught in Yokota into the system of Greer in view of Katsuhiko in order to have synchronization between the camera and the external equipment even after the transmission of the carrier is stopped.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greer et al. (US Patent # 5,959,622), in view of Katsuhiko (JP Patent # 04098996), Pine (US Patent # 6,714,260), Kiyokawa (US Patent # 6,204,877) and in further view of Yoshizawa et al. (US Patent # 4,802,201).

[Claim 5]

Greer in view of Katsuhiko and Pine teach the limitations of claim 4 but fails to teach "... causing any external equipment to transmit equipment identification information to another

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equipment for stopping a carrier; and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information”. However these limitations are well known in the art as evidenced by Yoshizawa (Abstract). It is noted that Yoshizawa specifically teaches that when a carrier wave is received from an external equipment and when the identification information contained in that carrier wave coincides with a preassigned identification signal, transmission of a paging signal, which would involve some kind of carrier, is stopped (Abstract). Therefore taking the combined teachings of Greer, Katsuhiro, Pine, Kiyokawa and Yoshizawa as a whole, it would have been obvious to one skilled in the art to modify the external equipment by transmitting equipment identification information to another equipment for stopping a carrier and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information. Doing so would lead to a power saving type apparatus as taught in Yoshizawa (col. 2 lines 46-49).

7. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greer et al. (US Patent # 5,959,622), Katsuhiro (JP Patent # 04098996), Pine (US Patent # 6,714,260) and in further view of Yokota et al. (US Patent # 5,847,662).

[Claim 10]

Greer in view of Katsuhiro and Pine teaches that the wireless oscillation is stopped during an imaging process but fails to teach, wherein, “while said wireless oscillation is stopped after the communication with desired external equipment has been established, said communication device is placed into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section.” However Yokota teaches that

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these limitations are well known and used in the art. It is noted that Yokota does teach in col. 2 lines 6-10, when the device receives the second carrier it stops transmitting the first carrier (col. 1 lines 40-45) and synchronizes with the first carrier frequency. The Examiner considers the semi-stop state as receiving a phase-synchronous signal from the external equipment. Therefore taking the combined teaching of Greer, Katsuhiro, Pine and Yokota it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate stopping said wireless oscillation after the communication with desired external equipment has been established and placing the communication device into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section. The benefit of doing so would be so that a communication apparatus can continuously transmit or receive a vast amount of data at a time at a high speed without intermission as evidenced in Yokota (col. 1 lines 40-45).

[Claim 12]

In light of the teaching from Greer, Katsuhiro and Yokota, it would be obvious to those skilled in the art that the electronic camera would notify said external equipment that it will go into said semi-stop state and after stopping said semi-stop state, it would notify said external equipment that it has been released from said semi-stop state in order to have the external equipment be in a synchronization state with the camera. Yokota teaches that said external equipment keeps the connection therewith and supplies a synchronization signal in response to the notification of semi-stop state received from said electronic camera (Col. 2 lines 6-10).

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8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greer et al. (US Patent # 5,959,622), Katsuhiro (JP Patent # 04098996), Pine (US Patent # 6,714,260), Yokota et al. (US Patent # 5,847,662) and in further view of Anderson (US Patent # 6,233,016).

[Claim 11]

Greer, Katsuhiro, Pine and Yokota fails to teach "... wherein said semi-stop state starts when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state. However Anderson teaches that these limitations are well known and used in the art. It is noted that Anderson, col. 7 lines 36-39, teaches a semi-stop state, wherein the semi-stop state is read as being started during a state when the power is in the Power-state 4 mode, during which a reduced power is supplied to the camera.

Further with regards to the limitation of said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state Anderson teaches that said semi-stop ends during the power-state 2 mode during which an imaging operation is finished (col. 7 lines 44-46). Therefore taking the combined teaching of Greer, Katsuhiro, Yokota, Pine and Anderson it would have been obvious to one skilled in the art at the time of the invention to have been motivated to start said semi-stop state when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and to end said semi-stop state when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state. The benefit of doing so would

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be to effectively and significantly increase the useful life of the batteries as taught in Anderson (col. 3 lines 51-53).

9. Claims 1, 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koide (JP Patent # 2000134531A), Katsuhiko (JP Patent # 04098996) and further in view of Pine (US Patent # 6,714,260).

[Claim 1]

Koide teaches an information-recording device (figure 1) comprising a recorder (memory card 109) for recording images (Paragraph 24), a communication device (112) for transmitting image information to external equipment (Paragraph 27), a controller (114 and 115) for controlling the communication section with an external unit (Paragraph 26). Koide further teaches that when image capturing buttons SW1 and SW2 are pressed to instruct a photographing operation, the controlling part interrupts the transmission of images (Abstract).

Koide teaches that during the time image is being taken an image transmitting operation does not take place but fails to teach an oscillation section that stops the pausing of the carrier frequency when the image is being captured by the information-recording device.

However Katsuhiko teaches stopping the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device or a transmission line and starting the output of the clock signal when there is any change in order to reduce the power consumption due to a dark current (Abstract).

Therefore taking the combined teachings of Koide and Katsuhiko, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have stopped the output of a clock signal for an oscillation circuit when there is no change in an input signal to an

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external device during the image taking of Koide in order to reduce the power consumption due to a dark current as taught in Katsuhiro.

Koide in view of Katsuhiro fails to teach a carrier generating section for generating a carrier for a wireless communication device. However Pine '260 teaches an imager circuit 15 having a master clock frequency oscillator 17 generating a desired carrier frequency for a radio transmission of the composite video signal for transmitting wirelessly (Col. 1 lines 66-67, col. 2 lines 1-7 figure 1, Abstract).

Therefore taking the combined teaching of Koide, Katsuhiro and Pine, it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate an oscillation section for generating a carrier for said wireless communication device taught in Pine into the system taught in Koide and Katsuhiro in order to pick a radio frequency signal by a conventional TV receiver, which can be synthesized on-chip to provide a wireless video link as taught in Pine (Abstract).

[Claim 3]

Regarding claim 3, this is a method claim corresponding to apparatus claim 1. Therefore, claim 3 is analyzed and rejected as previously discussed with respect to claim 1.

[Claim 9]

See the Examiner notes regarding rejection of notes claim 1.

Allowable Subject Matter

10. Claim 15 is allowed.

See the previous office action for notice of allowance.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571)-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YKA
October 9, 2006



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